

Computer Hardware

Reading Materials (Sixth Edition):

- Page 462 – 2nd paragraph – “Categories such as --- different types of computers.”
 Microcomputer Systems – 2nd paragraph – “Though usually called a --- use by an individual.”
 Page 463 – 2nd paragraph – “PCs are available as --- and floor-standing models.”
 3rd paragraph – (full).
 Page 464 – Boeing, Monstar.com, and Others: Corporate PC Criteria – 1st paragraph.
 Page 465 – Network Computers – 1st paragraph – “NCs are low-cost --- data access and storage.”
 2nd paragraph – “One of the main --- to full-featured PCs.”
 Information Appliances – 2nd paragraph – “Hand-held microcomputer devices --- information appliances category.”
 3rd paragraph – “Other information appliances --- and access the Web.”
 Page 466 – 2nd paragraph – (full).
 Page 467 – 1st paragraph – “Midrange computers have --- and financial applications.”
 Wyndham International: Consolidating Servers – 1st paragraph (full).
 Page 468 – Mainframe Computer Systems – 3rd paragraph – “Thus mainframe computers continue --- of large mainframe systems.”
 Figure 13.7 (to see)
 Page 469 – 2nd paragraph (full)
 4th paragraph – “For example, Blue Horizon --- Supercomputer Center during 2000.”
 Figure 13.8 (to see)
 Figure 13.9 (The following topic “Technical Note: The Computer System Concept” may help to understand the figure. This topic is not included in the reading materials.)
 Page 471 – Computer Processing Speed – 2nd paragraph – “However, most computers can --- of cycles per second.”
 Page 474 – Peripherals – “A computer is just --- part of a computer system.”
 Input Technologies – Electronic mouse, trackball, pointing stick, touchpad, touch screen. (Name)
 Page 476 – Pen-Based computing – 3rd paragraph – “You can use the --- entered into your application.”
 Page 477 – 3rd Paragraph – “Speech recognition devices in --- and more accurate input.”
 Page 478 – Optical Scanning – 2nd Paragraph – “Optical scanning devices --- input for your computer.”
 5th paragraph – “Devices such as --- and other media.” “For example, the automated checkout --- receipt for the customer.”
 Page 479 – Other Input Technologies – “Magnetic stripe technology -- --- of magnetic stripe readers.”
 2nd paragraph – “Smart card that embed --- in the United States.”
 4th paragraph – “Digital camera” (Name).
 5th paragraph – “The computer systems of --- character recognition (MICR) technology.”
 Page 480 – Output Technologies – Video Output – 2nd paragraph – Video monitors – “Cathode ray tube” (CRT).” (Name)
 3rd paragraph – “Liquid crystal display (LCD)” (Name).
 Page 481 – 2nd paragraph – “Inkjet printers, which --- for microcomputer systems.” “Laser printer use an --- black-and-white output.”
 Page 482 – Figure 13.20

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2nd paragraph – “Also, since most primary --- type of storage media.”

Computer Storage Fundamentals – (full)

Page 483 – Direct and Sequential Access – 1st paragraph (full)

Figure 13.22

Semiconductor Memory – (full)

Page 484 – Magnetic Disk Storage – 2nd paragraph – “Magnetic disk drives --- revolutions per minute (rpm).”

Page 485 – Type of Magnetic Disks – “Hard disk drives” (Name)

Page 486 – 1st paragraph – “Known as RAID (Redundant ---) --- microprocessor into a single unit.” “Storage area networks --- servers with many users.”

Optical Disk Storage – “CD – ROM (compact disk read only memory)”. (Name)

2nd paragraph – “CD – RW (CD- rewritable)” (Name)

“In CD – RW versions --- direction of reflected light.”

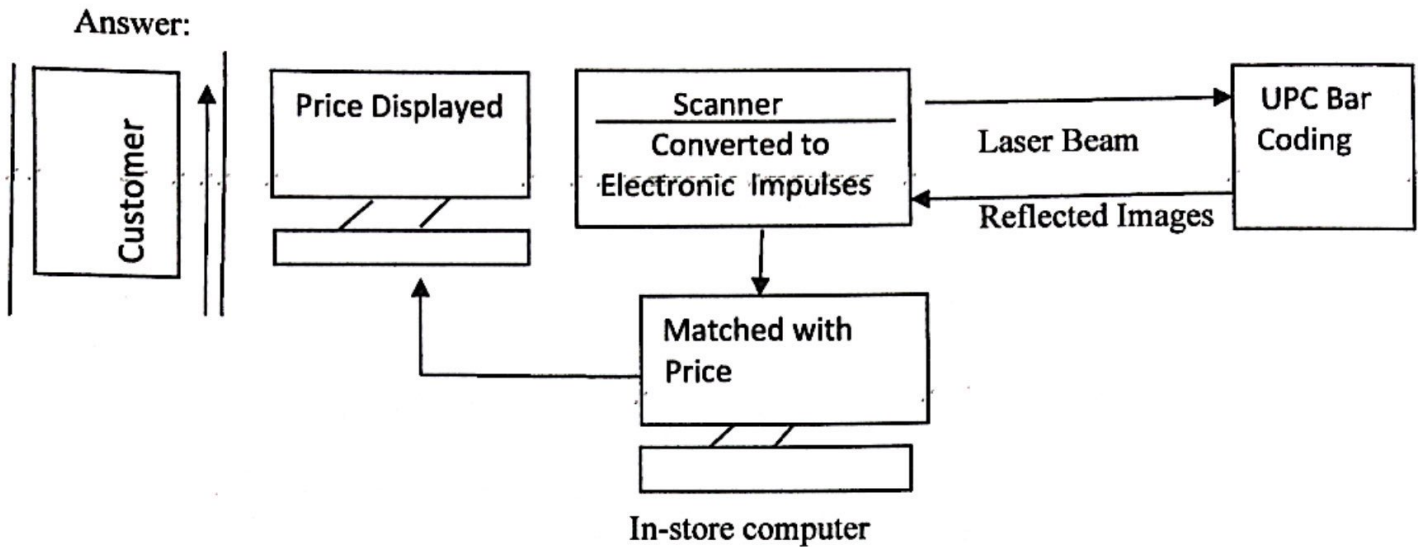
Few Sample Questions:

Tentative Marks

- | | |
|---|------|
| 1. Draw the figure of computer system concept. | 3-5 |
| 2. Draw the figure of storage media cost, speed, and capacity trade-offs. | 2-4 |
| 3. Explain computer storage fundamentals. | 7-10 |
| 4. Draw the figure of sequential versus direct access storage. | 3-5 |
| 5. Describe semiconductor memory. | 3-5 |

1. What categories are still used to help us express the relative processing power and the number of users that can be supported by different types of computers?
2. Mention the names of four types of PCs.
3. What term is used for powerful microcomputers that support applications with heavy mathematical computing and graphics display demand such as computer aided design (CAD) in engineering, or investment and portfolio analysis in the securities industry?
4. What term is used for the powerful microcomputers that coordinate telecommunications and resource sharing in small local area networks (LANs), and Internet, and intranet websites?
5. Write three examples of total cost of ownership (of computer)? Which one of the following is usually bigger – price of a new computer or total cost of ownership?
6. What is the name of the low-cost, sealed, networked microcomputers with no or minimal disk storage?
7. Which type of microcomputer depend primarily on Internet and intranet servers for their operating system and Web browser, Java-enabled application software, and data access and storage?
8. Write three attractions of network computers compared to full featured PCs?
9. What term is used for the hand-held microcomputer devices?
10. Mention the name of three information appliances.
11. Mention the name of two types of transaction terminals? Upon what the transaction terminal rely for transaction processing?
12. Which category of computers has become popular as powerful network servers to help manage large Internet websites, corporate intranets and extranets and client/server networks? Mention two other uses of this category computers.
13. "Global hotel chain Wyndham International in Dallas is putting the application that controls guest arrivals, departures, and billing onto two IBM eServer p680 midrange computers running Unix." How many servers were required for the same guest-management tasks?
14. Write three examples of the use of mainframe computer system.
15. Which category of computers are used for weather forecasting, military defense systems, computational cosmology and astronomy, microprocessor research and design, large-scale data mining?
16. How many microprocessor were in IBM RS/6000 SP that was installed at the San Diego Supercomputer Center during 2000?
17. What are the measures of computer processing speed?
18. What generic name is given to all input, output, and secondary storage devices that are part of the computer system?
19. Mention name of ten input technologies?
20. "You can use digitizer pen as a pointing device, or use it to draw or write on the pressure-sensitive surface of the graphics tablet." What type of technology is it?
21. What "allow operators to perform data entry without using their hands to key in data or instructions --- ---"?
22. What are used to read OCR coding on merchandize tags, product labels and other media?
23. How pricing information is returned to the terminal in supermarket?

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24. The iron-oxide coating hold about 200 bytes of information. Customer account number can be recorded in the coating. What input technology is it?
25. What embed in smart card? What is the size of the memory?
26. What technology is used in banking industry to read check and deposit slips?
27. What stands for CRT and LCD?
28. How inkjet printers and laser printers work? Which one is low-cost printer?
29. Mention the names of two types of storage media. Write two examples of them?
30. Which type of storage lose their contents when electrical power is interrupted?
31. Mention one example of direct and one example of sequential access media.
32. What is used to make magnetic disk? What are mounted together on a vertical shaft?
33. What redundant array of independent disks (RAID) combine? What can interconnect many RAID units?
34. What stands for CD-ROM?
35. "A magnetic coal changes the spot's reflective properties from one direction to another, thus recording a binary one or zero. A laser device can then read the binary codes on the disk by sensing the direction of reflected light." Which technology is it?